Appl. No. 10/583,818
Amdt. dated July 22, 2010
Reply to Office Action of April 27, 2010

Amendments to the Specification:

Please replace the paragraph [0009] at page 7 with the following rewritten paragraph:

[0009]

Accordingly, by determining that the output fixing trouble of the vehicle body acceleration sensor or the like is not generated at a point of time that the fluctuation width of the output value of the vehicle body acceleration sensor becomes the predetermined value or above during the traveling of the vehicle with the vehicle speed equal to ~~ore~~ or more than the predetermined speed, and by stopping the trouble diagnosis of the output fixing trouble of the vehicle body acceleration sensor or the like until the vehicle speed is lowered to a value less than the predetermined speed thereafter, it is possible to avoid the trouble diagnosis of the output fixing trouble of the vehicle body acceleration sensor or the like in a state that the trouble diagnosis of the output fixing trouble of the vehicle body acceleration sensor or the like is unnecessary.

Please replace the paragraph [0016] at page 13 with the following rewritten paragraph:

[0016]

The ECU 2 includes a control block 22 having an antilock brake control function which receives the slip factor and the wheel acceleration/deceleration which are calculated by the arithmetic block 21 as an input, generates a control command with respect to a brake pressure by logically combining the inputted slip factor and the wheel acceleration/deceleration and transmits the control command to the liquid pressure unit 3. The ECU 2 includes a monitor block 23 having a system monitor function which performs a function check and the monitoring of

2

respective constitutional parts and the whole system, wherein when a defect is found in the

above-mentioned parts and system, the monitor block 23 alarms a driver using an alarm ~~lump~~

lamp 5, an alarm buzzer not shown in the drawings or the like and, further, stops the antilock

brake control function and, at the same time, allows a normal brake operation.

Please replace the paragraph at page 15, line 15, with the following rewritten paragraph:

First of all, the ECU 2 determines whether an output fixing trouble detection stop flag is

set to ON or not (step S1) . This output fixing trouble detection stop flag is a flag for selecting

whether a step which detects the output fixing trouble of the vehicle body acceleration sensor 1

described later is executed or oat . The detection of output fixing trouble of the vehicle body

acceleration sensor 1 is executed only during a period in which the output fixing trouble

detection stop flag is set to OFF, and the detection of the output fixing trouble of the vehicle

body Acceleration sensor 1 is not executed during a period in which the flag is set to ON. When

the output fixing trouble detection stop flag is set to OFF (No in step S1) , subsequently, the

ECU 2 determines whether the vehicle speed is equal to or more than a preset speed y which

constitutes "a predetermined speed" or not (step S2). In this embodiment, the preset speed y is set

to approximately 4 ~~meter/s~~ m/s. It is preferable that the preset speed y is set to a speed as low as

possible. By setting the preset speed to such a speed, when the output fixing trouble of the

vehicle body acceleration sensor 1 occurs, it is possible to detect the output fixing trouble

immediately after starting the traveling of the vehicle. When the vehicle speed is less than the

preset speed y (No in step S2), the ECU 2 determines that the vehicle is in a stopped state and

finishes the step as it is. When the vehicle speed is equal to or more than the preset speed y (Yes

3

in step S2), the ECU 2 determines that the vehicle is traveling and, subsequently, determines

whether a fluctuation width of the output value of the vehicle body acceleration sensor 1 (G

sensor) is equal to or more than a preset fluctuation width 6 which constitutes "a predetermined

value of the output fluctuation width of the vehicle body acceleration sensor" or not (step S3). In

this embodiment, the preset fluctuation width 8 is set to approximately 0.59 ~~meter~~m/s². It is

preferable that the preset fluctuation width 6 is a fluctuation width which is sufficiently larger

than the fluctuation of the output value attributed to the voltage fluctuation of the power source

voltage of the vehicle body acceleration sensor 1 and, at the same time, is set to a fluctuation

width as small as possible. Bu setting the preset fluctuation width δ to such a fluctuation width,

there is no possibility that the output fixing trouble of the vehicle body acceleration sensor 1 is

overlooked and, at the same time, time for executing the detection of the output fixing trouble of

the vehicle body acceleration sensor 1 during traveling can be shortened to a minimum.

Please replace the Abstract beginning at page 47 with the following rewritten paragraph:

~~The present invention reduces a control processing load of a vehicle-use antilock brake~~

~~system attributed to a trouble diagnosis of a sensor which is mounted on a vehicle and has an~~

~~output thereof changed corresponding to a traveling state of the vehicle during traveling of the~~

~~vehicle, particularly a vehicle body acceleration sensor which detects the vehicle body~~

~~acceleration of the vehicle. From a point of time that a vehicle speed becomes a preset speed γ~~

~~(4m/s) or more (timing indicated by symbol T1), the storing and the updating of a maximum~~

~~value Gmax and a minimum value Gmin of an output value of the vehicle body acceleration~~

~~sensor 1 are started and it is determined whether the difference between the maximum value~~

4

~~Gmax and the minimum value Gmin, that is, a fluctuation width of the output value of the vehicle body acceleration sensor 1 becomes a preset fluctuation width δ or more or not. Then, at a point of time that the fluctuation width of the output value of the vehicle body acceleration sensor 1 becomes the preset fluctuation width δ or more, an output fixing trouble detection stop flag of the vehicle body acceleration sensor 1 is changed over from OFF to ON and hence, the detection of the output fixing trouble of the vehicle body acceleration sensor 1 is not performed (timing indicated by symbol T2)~~.

A trouble diagnosis device of a vehicle body acceleration sensor by determining that the output fixing trouble of the vehicle body acceleration sensor or the like is not generated at a point of time that the fluctuation width of the output value of a vehicle body acceleration sensor becomes a predetermined value or above during the traveling of the vehicle with the vehicle speed equal to or more than the predetermined speed, and by stopping the trouble diagnosis of the output fixing trouble of the vehicle body acceleration sensor or the like until the vehicle speed is lowered to a value less than the predetermined speed thereafter, it is possible to avoid the trouble diagnosis of the output fixing trouble of the vehicle body acceleration sensor or the like when that the trouble diagnosis of the output fixing trouble of the vehicle body acceleration sensor or the like is unnecessary.

5